

Table 5: Environmental Aging Performance of DP6310NS and DP6330NS

Condition	DP6310NS (Control)	DP6330NS (Control)
Control	100 %	100 %
65 °C/80 % RH	75 %	80 %
Salt Spray (14 days)	65 %	90 %
Gasoline	85 %	90 %
Antifreeze	TBD	100 %

⁵ Values indicate overlap shear test performance retained after 1,000 hours of continuous exposure relative to a control sample left at room temperature; samples conditioned for 7 days at room temperature and 50 % relative humidity prior to tests.

Table 6: Temperature Performance of DP6310NS and DP6330NS

Temperature (°C)	DP6310NS (Control)	DP6330NS (Control)
-40 °C	24.1	24.8
23 °C	24.8	24.8
49 °C	11.7	11.7
82 °C	6.2	6.9

⁶ Floating roller peel values measured using ASTM D3167; allowed to cure for 24 hours at room temperature; 25 mm wide samples; 0.43 mm bond line thickness. The testing jaw separation rate was 150 mm. per minute. The bonds are made with 1.6 mm. bonded to 0.635 mm thick adherents.

AF: adhesive failure CF: cohesive failure SF: substrate failure

Application Instructions

- To obtain the highest strength structural bonds, paint, oxide films, oils, dust, mold release agents, and all other surface contaminants must be completely removed. The amount of surface preparation depends on the required bond strength and environmental aging resistance desired by user. For suggested surface preparations on common substrates, see the section on surface preparation.
- Mixing
Store cartridges with cap end up to allow any air bubbles to rise towards the tip. To use, simply insert the cartridge into the EPX applicator and start the plunger into the cylinders using light pressure on the trigger. Then remove the cap and expel a small amount of adhesive to ensure material flows freely from both sides of cartridge. For automatic mixing, attach an EPX mixing nozzle to the cartridge and begin dispensing the adhesive. For hand mixing, expel the desired amount of adhesive and mix thoroughly. Mix approximately 15 seconds after obtaining a uniform colour.

Mixing and Application

Mix thoroughly by weight or volume in the proportion specified on the product label or in the typical uncured properties section. Mix approximately 15 seconds after obtaining a uniform color.

3. Apply adhesive and join surfaces within the open time listed for the specific product. Larger quantities and/or higher temperatures will reduce this working time.
4. Allow adhesive to cure at 16 °C or above until completely firm. Applying heat up to 93 °C will increase cure speed.
5. Keep parts from moving during cure. Apply contact pressure or fixture in place if necessary. Optimum bond line thickness ranges from 0.127 to 0.508 mm; shear strength will be maximized with thinner bond lines, while peel strength reaches a maximum with thicker bond lines.
6. Excess uncured adhesive can be cleaned up with ketone type solvents. *

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VRXUFHVLEOXGLORWOLKWVDGIROORZKH
manufacturer's precautions and directions for use**

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3M™ Scotch-Weld™ Multi-Material & Composite Urethane Adhesives DP6310NS and DP6330NS are designed to be used on composites, metal, wood, and most plastic surfaces. The following cleaning methods are suggested for common surfaces:

Steel:

1. Wipe free of dust and dirt with pure solvent such as acetone or isopropyl alcohol.*
2. Sandblast or abrade using clean fine grit abrasives.
3. Wipe again with clean solvent to remove loose particles.*
4. For best results, apply a primer to bare steel before bonding, such as an epoxy-based primer or 3M™ Adhesion Promoter 111.

Aluminum:

1. Wipe free of dust and dirt with pure solvent such as acetone or isopropyl alcohol.*
2. Sandblast or abrade using clean fine grit abrasives.
3. Wipe again with clean solvent to remove loose particles.*

Plastics/Rubbers/Paints/Coatings:

1. Wipe with isopropyl alcohol.*
2. Abrade using fine grit abrasives.
3. Wipe with isopropyl alcohol.*

Glass:

1. Solvent wipe surface using acetone or MEK.*
2. Apply a thin coating of a silane adhesion promoter to the glass surfaces to be bonded and allow to dry completely before bonding.

*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use.

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Store product at 21 °C or below. Do not freeze. Allow product to reach room temperature prior to use.

The product can be stored up to 12 months after production in unopened, original containers kept at recommended storage conditions.

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Refer to product and Material Safety Data Sheet for health and safety information before using the product. For information please see below for contact details.

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To request additional product information or to arrange for sales assistance, please see below for contact details.

Automotive Disclaimer

Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, including, but not limited to, automotive electric powertrain battery or high voltage applications. This product does not fully adhere to typical automotive design or quality system requirements, such as IATF 16949 or VDA 6.3. This product may not be manufactured in an IATF certified facility and may not meet a Ppk of 1.33 for all properties. The product may not undergo an automotive production part approval process (PPAP). Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's automotive application and for conducting incoming inspections before use of the product. Failure to do so may result in injury, death, and/or harm to property. No written or verbal statement, report, data or recommendation by 3M related to automotive use of the product shall have any force or effect unless in an agreement signed by the Technical Director of 3M's Automotive Division. Customer assumes all responsibility and risk if customer chooses to use this product in an automotive electric powertrain battery or high voltage application, and 3M will not be liable for any loss or damage arising from or related to the 3M product or customer's use of the product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity or recall costs), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability. In no event shall 3M be liable for any damages in excess of the purchase price paid for the product.

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